

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1 1. (Currently Amended) A modular refrigeration system, comprising:
2 a refrigeration device having a space configured for storage of products
3 therein;
4 a cooling system providing a coolant to a primary cooling element
5 configured to provide cooling generally throughout ~~the~~ the space;
6 at least one supplemental modular cooling element configured for
7 placement at any one of a plurality of locations within the space and configured to
8 receive the coolant to provide supplemental cooling at the location within the space so
9 that a temperature distribution profile of the products within the space can be
10 customized.
- 1 2. (Original) The modular refrigeration system of Claim 1 wherein the
2 refrigeration device is a temperature controlled case.
- 1 3. (Original) The modular refrigeration system of Claim 1 wherein the
2 coolant is a liquid coolant.
- 1 4. (Original) The modular refrigeration system of Claim 1 wherein the
2 coolant is a direct expansion refrigerant.
- 1 5. (Original) The modular refrigeration system of Claim 1 wherein the
2 refrigeration device comprises a main heat exchanger and the modular cooling
3 element is configured to provide supplemental cooling at a predetermined location
4 within the space.

1 6. (Original) The modular refrigeration system of Claim 1 further
2 comprising a piping system interfacing with the cooling system and the modular
3 cooling element and configured to circulate the coolant through the modular cooling
4 element.

1 7. (Original) The modular refrigeration system of Claim 1 wherein the
2 modular cooling element is portable and configured for interchangeable installation at
3 one of the plurality of locations within the space.

1 8. (Original) The modular refrigeration system of Claim 1 wherein the
2 modular cooling element is coupled to a shelf.

1 9. (Original) The modular refrigeration system of Claim 1 wherein the
2 modular cooling element is coupled to an end panel.

1 10. (Original) The modular refrigeration system of Claim 1 further
2 comprising a control system configured to regulate a flow of the coolant to the
3 modular cooling element.

1 11. (Currently Amended) The modular refrigeration system of Claim 6 +
2 ~~wherein further comprising quick disconnects coupled to the piping system to permit~~
3 installation and removal of the modular cooling element ~~is positioned so that the~~
4 ~~temperature variation among the products is minimized.~~

1 12. (Currently Amended) A system for customizing a temperature
2 distribution profile within a space of a temperature controlled case for storage and
3 display of food products refrigeration device, comprising:

4 a cooling system having a first heat exchanger in a substantially fixed
5 location and a coolant configured to cool the space;

6 a second heat exchanger configured for selective placement at a desired
7 location within the space ~~refrigeration device~~;

8 a piping system configured to interface with the cooling system and the
9 second heat exchanger to provide a supply of coolant to the second heat exchanger;
10 and

11 a control system configured to regulate a flow of coolant through the
12 second heat exchanger.

1 13. Cancelled.

1 14. (Currently Amended) The system of Claim 12 ~~13~~ wherein the
2 temperature controlled case is an existing temperature controlled case and the second
3 heat exchanger is configured for placement as a retrofit application.

1 15. (Currently Amended) The system of Claim 12 ~~13~~ wherein the
2 temperature controlled case is a new temperature controlled case and the second heat
3 exchanger is configured for placement during construction of the new temperature
4 controlled case.

1 16. (Original) The system of Claim 12 wherein the first heat exchanger is
2 a main heat exchanger and the second heat exchanger is a modular cooling element.

1 17. (Original) The system of Claim 16 wherein the modular cooling
2 element is removably coupled to a surface within the space.

1 18. (Original) The system of Claim 16 wherein the modular cooling
2 element is configured for placement at a predetermined location within the space to
3 provide a source of supplemental cooling.

1 19. (Original) The system of Claim 18 wherein the predetermined location
2 is a shelf unit.

1 20. (Original) The system of Claim 18 wherein the predetermined location
2 is an end panel.

1 21. (Original) The system of Claim 16 wherein the piping system includes
2 at least one flow control device configured to regulate a flow of coolant to the
3 modular cooling element.

1 22. (Original) The system of Claim 16 wherein the modular cooling
2 element is a fin-coil type heat exchanger.

1 23. (Original) The system of Claim 12 wherein the piping system further
2 comprises at least one quick disconnect device configured to interconnect the piping
3 system and the second heat exchanger.

1 24. (Original) A temperature controlled case having a modular cooling
2 system, comprising:
3 a cooling system providing a coolant and having a main cooling
4 element in a substantially fixed location and configured to receive the coolant and
5 provide cooling to a space within the temperature controlled case;
6 at least one supplemental cooling element configured to interface with
7 the cooling system and to receive a supply of the coolant;
8 wherein the supplemental cooling element is configured to be
9 selectively mounted at any one of a plurality of locations within the space so that a
10 variation of a temperature range within the space can be substantially minimized.

1 25. (Original) The temperature controlled case of Claim 24 wherein the
2 supplemental cooling element is configured to mount on a shelf unit.

1 26. (Original) The temperature controlled case of Claim 24 wherein the
2 supplemental cooling element is configured to mount on a panel member.

1 27. (Original) The temperature controlled case of Claim 24 wherein the
2 coolant is one of a liquid secondary coolant and a direct expansion refrigerant.

1 28. (Original) The temperature controlled case of Claim 24 wherein the
2 supplemental cooling element is configured for interchangeable installation at a
3 predetermined location.

1 29. (Original) The temperature controlled case of Claim 24 wherein the
2 supplemental cooling element is configured to provide a localized source of cooling
3 within the space.

1 30. (Original) The temperature controlled case of Claim 24 wherein the
2 supplemental cooling element is configured as a substantially flat panel.

1 31. (Original) The temperature controlled case of Claim 24 wherein the
2 supplemental cooling element has a cooling capacity sufficient to minimize a
3 temperature variation within the space.

1 32. (Original) The temperature controlled case of Claim 24 wherein the
2 supplemental cooling element is reconfigurable to accommodate changes to the
3 temperature controlled case.

1 33. (Original) The temperature controlled case of Claim 24 further
2 comprising a supplemental warming element configured to receive a warmed supply
3 of the coolant.

1 34. (Original) A method of customizing a temperature distribution profile
2 within a refrigeration device having a cooling system, comprising:

3 determining a temperature distribution profile within the refrigeration
4 device provided by the cooling system;

5 identifying at least one location within the refrigeration device having a
6 temperature above a desired temperature range;

7 providing a modular cooling element configured for installation at the
8 location; and

9 interconnecting the modular cooling element with the cooling system.

1 35. (Original) The method of Claim 34 wherein the step of determining a
2 temperature distribution profile comprises experimentation.

1 36. (Original) The method of Claim 34 wherein the modular cooling
2 element is configured to provide localized cooling at the location.

1 37. (Original) The method of Claim 34 wherein the step of
2 interconnecting the modular cooling element with the cooling system comprises
3 providing a piping system having at least one connection device.

1 38. (Original) The method of Claim 37 wherein the piping system further
2 comprises at least one flow control device.

1 39. (Original) The method of Claim 34 wherein the modular cooling
2 element is configured for interchangeable installation at one or more locations.

1 40. (Original) The method of Claim 34 wherein the modular cooling
2 element is portable.

1 41. (Original) The method of Claim 34 wherein the refrigeration device is
2 a temperature controlled case.

1 42. (Original) The method of Claim 41 wherein the temperature controlled
2 case is a new construction temperature controlled case.

1 43. (Original) The method of Claim 34 wherein the step of determining a
2 temperature distribution profile comprises monitoring a temperature of a plurality of
3 predetermined products intended for storage and display within the refrigeration
4 device.